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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/745,390	12/22/2000	Tony Mark	871.0011 USU	1123

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EXAMINER

DAO, MINH D

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 09/23/2003

8

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/745,390

Applicant(s)

MARK ET AL.

Examiner

MINH D DAO

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## Detailed Actions

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

1. Claims 1,2,4,7,8,10,13 are rejected under 35 U.S.C. 102(a) as being anticipated by **Halperin et al.** (US Patent 6,115,616).

Regarding claim 1, **Halperin** discloses a mobile station, comprising:

a communication part that comprises a controller (See Fig. 4, item 407), an RF transceiver (See Fig. 1, "Telephone Circuitry") and an antenna (See Fig. 4, item 410; Coll. 5, lines 3-4); and a self-powered (Col. 4, lines 15-18) information entry part comprising a keypad or keyboard module that is detachable from said communication part and that is coupled, whether attached or detached, through a wireless link to said communication part for conveying keystroke information from said information entry part to said communication part (Col. 2, lines 39-52).

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Regarding claims 2 and 8 **Halperin** also teaches that the wireless link is comprised of an RF link (Col. 1, lines 49-58).

Regarding claims 4 and 10 **Halperin** further teaches that the keypad module comprises a source for providing operating power for said keypad module (Col. 2, lines 61-65).

Regarding claim 7, **Halperin** teaches a keypad module (See Fig. 1, item 16), comprising an engaging mechanism for being detachably coupled to a wireless communication (See Fig. 1, item 10) terminal and an interface for being coupled, whether attached or detached, through a wireless link to a wireless communication terminal for conveying keypad-generated information from said keypad module to said wireless communication terminal (Col. 2, lines 39-52).

Regarding claim 13, **Halperin** further teaches a method for dialing a telephone number, comprising steps of: providing a keypad module (See Fig. 1, item 16) that is detachably coupled to a wireless communication terminal (See Fig. 1, item 10; Col. 2, lines 39-42); entering information for specifying a telephone number using a keypad on the keypad module (Col. 4, lines 13-15); and a keypad module is attached to or detached from the wireless communication terminal, conveying keypad generated information from the keypad module to the wireless communication terminal through a wireless link (Col. 2, lines 39-52).

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Halperin et al.** (US Patent 6,115,616) and further in view of **Harris** (US 6,222,458).

Regarding claims 3 and 9, as indicated in the response for claim 1 and claim 7 above, **Halperin** fails to disclose that the wireless link is comprised of a Bluetooth link. **Harris** teaches that a wireless link is comprised of a Bluetooth link (See Fig. 1, items 100 and 105; Col. 1, lines 49-58).

It would therefore be obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Harris** to **Halperin** in order to provide a low cost, effective way of short range communication using Bluetooth method.

4. Claims 5,6,11,12,14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Halperin et al.** (US Patent 6,115,616) and further in view of **Kai** (US Patent 4,882,471).

Regarding claims 5, 11 and 14 **Halperin**, in the response for claim 4 above, fails to teach that the source is comprised of at least one solar cell. **Kai** on the other hand teaches a use of solar cell in the power source (See Fig. 2A, item 4; Col. 2, lines 48-51).

It would therefore been obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Kai** to **Halperin** in order come up with a simple, low cost way to provide power to a device.

Regarding claims 6 and 12 **Halperin** further teaches a mobile station as in claim 5, wherein the source is comprised of at least one battery (Col. 2, lines 61-65).

Regarding claim 15, **Halperin** discloses a mobile station, comprising:

a communication part that comprises a controller (See Fig. 4, item 407), an RF transceiver (See Fig. 1, "Telephone Circuitry") and an antenna (See Fig. 1, item 410; Col. 5, lines 3-4); and

an information entry part comprising a keypad or keyboard module that is separate from the communication part and that is coupled through an RF link (Col. 1, lines 49-58) to the communication part for conveying keystroke information from the information entry part to the communication part. However, **Halperin** fails to teach that there is at least one solar cell for powering the keyboard module.

**Kai**, on the other hand, discloses the use of a solar cell located on the keyboard (See Fig. 2A, item 4; Col. 2, lines 48-51) to support the power source for powering the module.

It would therefore been obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Kai** to **Halperin** in order come up with a simple, low cost way to provide power to the keyboard module.

Regarding claim 16, **Halperin** also teaches mobile station as in claim 15, wherein at least one of the mobile station and the module are adapted for being mechanically attached to one another and detached from one another (Col. 2, lines 39-52).

Regarding claim 17, **Halperin** discloses an information entry module (See Fig. 1, item 16) that comprises a keypad or a keyboard and that further comprises an interface for being coupled through a wireless link to a wireless communication terminal (See Fig. 1, item 10) for conveying user-generated keystroke information from the module to the wireless communication terminal. However, **Halperin** fails to teach that the information entry module comprises at least one solar cell for powering the module.

**Kai** discloses the use of a solar cell located on the keyboard (See Fig. 2A, item 4; Col. 2, lines 48-51) to support the power source for powering the module.

It would therefore been obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Kai** to **Halperin** in order to come up with a simple, low cost way to provide power to the keyboard module.

Regarding claim 18, **Halperin** further teaches an information entry module as in claim 17, wherein at least one of the wireless communication terminal and the module are adapted for being mechanically attached to one another and detached from one another (Col. 2, lines 39-52).

5. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Halperin et al.** (US Patent 6,115,616), **Kai** (US Patent 4,882,471) as applied to claim 17 above and further in view of **Kinzie** (US Patent 6,326,934).

Regarding claim 19, the combination of teaching of **Halperin** and **Kai** as mentioned above fails to teach an information entry module as in claim 17, wherein the wireless link is a uni-directional link. **Kinzie** teaches a wireless uni-directional link (Col. 6, lines 56-59).

It would therefore been obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Kinzie** to **Kai** and **Halperin** in order to increase the transmission gain at a desired direction.



Regarding claim 20, the combination of teaching of **Halperin** and **Kai** as mentioned above fails to teach an information entry module as in claim 17, wherein the wireless link is a bi-directional link. **Kinzie**, on the other hand, teaches a wireless bi-directional link (Col. 6, lines 56-59).

It would therefore been obvious to one of ordinary skill in the art at the time of the invention to have provided the teaching of **Kinzie to Kai** and **Halperin** in order to increase the transmission gain at a desired direction.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Shindo (US Patent 5,857,157) discloses Portable Communication Apparatus.
- b. Yl et al (US 2002/0183005) discloses Security Codeless Phone Unit Using Bluetooth.
- c. Park et al (US Patent 5,861,822) discloses Wire/Wireless Keyboard And Control Method Therefore

- d. Jarrett (US 2001/0031645) discloses Multi-Purpose Mobile Cordless Phone System
- e. Yen (US Patent 5,803,744) discloses Computer Typing Learning Device

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D DAO whose telephone number is 703-305-5589. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN C CHIN can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Minh Dao  
Examiner  
Art Unit 2682  
September 9, 2003

*MD*



**NGUYENT. VO**  
**PRIMARY EXAMINER**